

RF CIRCUITRY AND COMPACT HYBRID FOR WIRELESS
COMMUNICATION DEVICES

Abstract of the Disclosure

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A compact hybrid comprises reactive power-dividers and signal paths
coupling the reactive power-dividers to provide a predetermined phase difference
therebetween. The signal paths may have 90-degree bends therein to reduce a
distance between adjacent reactive power-dividers to less than a physical
10 distance associated with the predetermined phase difference in a stripline
medium. The hybrid may be a 180-degree hybrid and may be part of RF circuitry
of a wireless communication device to combine signals from a pair of antennas
and to provide a sum signal and a difference signal. The RF circuitry may also
comprise switching circuitry to select between the sum signal and the difference
15 signal based on a signal quality of the sum and difference signals.

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